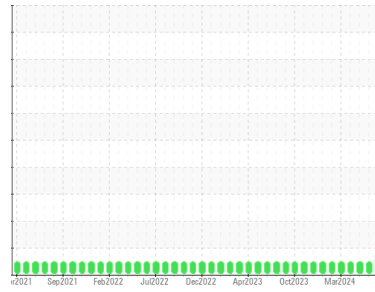




# OIL ANALYSIS REPORT

## Sample Rating Trend



ISO



Machine Id  
**SOLAR**  
 Component  
**Turbine**  
 Fluid  
**MOBIL DTE 732 (--- GAL)**

### DIAGNOSIS

#### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

#### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

### SAMPLE INFORMATION

|               | method      | limit/base  | current            | history1    | history2    |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info |             | <b>WC0711814</b>   | WC0711818   | WC0820306   |
| Sample Date   | Client Info |             | <b>09 Jul 2024</b> | 04 Jun 2024 | 01 May 2024 |
| Machine Age   | mths        | Client Info | <b>0</b>           | 0           | 0           |
| Oil Age       | mths        | Client Info | <b>0</b>           | 0           | 0           |
| Oil Changed   | Client Info |             | <b>N/A</b>         | N/A         | N/A         |
| Sample Status |             |             | <b>ATTENTION</b>   | NORMAL      | NORMAL      |

### WEAR METALS

|          | method | limit/base      | current      | history1 | history2 |
|----------|--------|-----------------|--------------|----------|----------|
| Iron     | ppm    | ASTM D5185m >15 | <b>&lt;1</b> | 0        | 0        |
| Chromium | ppm    | ASTM D5185m >4  | <b>0</b>     | 0        | 0        |
| Nickel   | ppm    | ASTM D5185m >2  | <b>0</b>     | 0        | 0        |
| Titanium | ppm    | ASTM D5185m     | <b>0</b>     | 0        | 0        |
| Silver   | ppm    | ASTM D5185m     | <b>0</b>     | 0        | 0        |
| Aluminum | ppm    | ASTM D5185m >10 | <b>0</b>     | 0        | 0        |
| Lead     | ppm    | ASTM D5185m     | <b>0</b>     | 0        | <1       |
| Copper   | ppm    | ASTM D5185m >5  | <b>0</b>     | 0        | 0        |
| Tin      | ppm    | ASTM D5185m >5  | <b>0</b>     | 0        | <1       |
| Vanadium | ppm    | ASTM D5185m     | <b>0</b>     | <1       | 0        |
| Cadmium  | ppm    | ASTM D5185m     | <b>0</b>     | 0        | 0        |

### ADDITIVES

|            | method | limit/base  | current  | history1 | history2 |
|------------|--------|-------------|----------|----------|----------|
| Boron      | ppm    | ASTM D5185m | <b>0</b> | 0        | 0        |
| Barium     | ppm    | ASTM D5185m | <b>0</b> | 0        | 9        |
| Molybdenum | ppm    | ASTM D5185m | <b>0</b> | 0        | 0        |
| Manganese  | ppm    | ASTM D5185m | <b>0</b> | 0        | <1       |
| Magnesium  | ppm    | ASTM D5185m | <b>0</b> | 0        | <1       |
| Calcium    | ppm    | ASTM D5185m | <b>0</b> | 4        | 6        |
| Phosphorus | ppm    | ASTM D5185m | <b>0</b> | 11       | 8        |
| Zinc       | ppm    | ASTM D5185m | <b>0</b> | 0        | 0        |
| Sulfur     | ppm    | ASTM D5185m | <b>0</b> | 29       | 22       |

### CONTAMINANTS

|           | method | limit/base       | current      | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >15  | <b>1</b>     | <1       | <1       |
| Sodium    | ppm    | ASTM D5185m      | <b>7</b>     | 7        | 7        |
| Potassium | ppm    | ASTM D5185m >20  | <b>&lt;1</b> | 0        | 2        |
| Water     | %      | ASTM D6304 >0.03 | <b>0.003</b> | 0.001    | 0.001    |
| ppm Water | ppm    | ASTM D6304 >300  | <b>29</b>    | 4        | 11       |

### FLUID CLEANLINESS

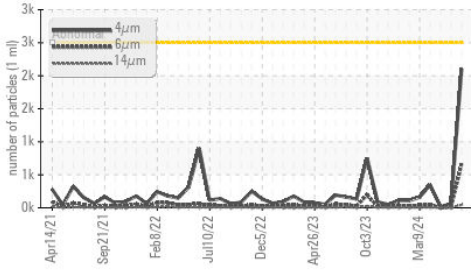
|                 | method       | limit/base | current         | history1 | history2 |
|-----------------|--------------|------------|-----------------|----------|----------|
| Particles >4µm  | ASTM D7647   | >2500      | <b>2102</b>     | 64       | 15       |
| Particles >6µm  | ASTM D7647   | >640       | <b>667</b>      | 14       | 0        |
| Particles >14µm | ASTM D7647   | >80        | <b>46</b>       | 2        | 0        |
| Particles >21µm | ASTM D7647   | >20        | <b>9</b>        | 0        | 0        |
| Particles >38µm | ASTM D7647   | >4         | <b>1</b>        | 0        | 0        |
| Particles >71µm | ASTM D7647   | >3         | <b>0</b>        | 0        | 0        |
| Oil Cleanliness | ISO 4406 (c) | >18/16/13  | <b>18/17/13</b> | 13/11/9  | 11/7/7   |

### FLUID DEGRADATION

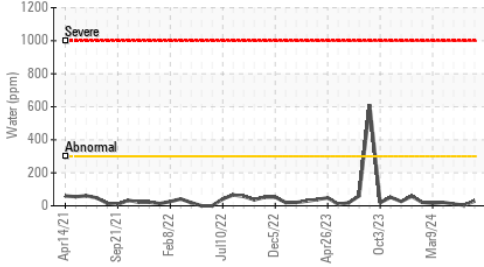
|                  | method   | limit/base      | current     | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 0.10 | <b>0.12</b> | 0.12     | 0.11     |

# OIL ANALYSIS REPORT

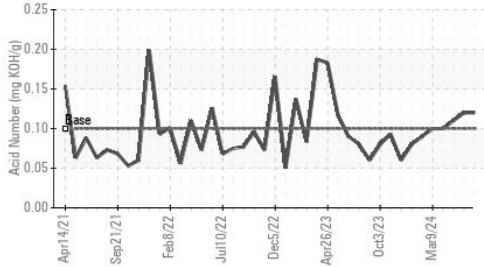
### Particle Trend



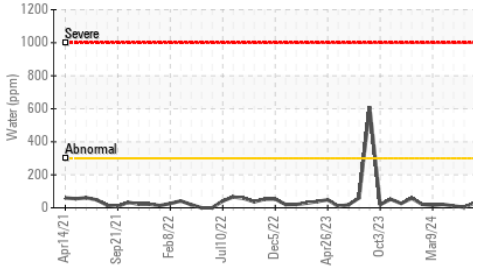
### Water (KF)



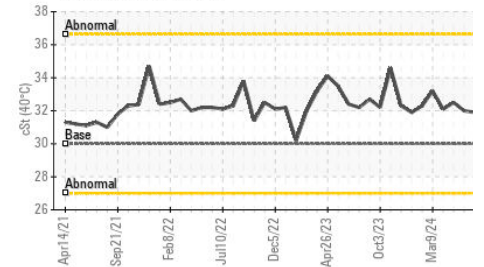
### Acid Number



### Water (KF)



### Viscosity @ 40°C



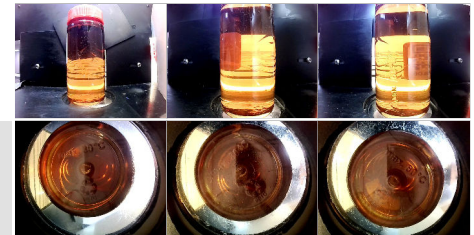
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual    | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual    | NONE    | NONE     | NONE     |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE     | NONE     |
| Appearance       | scalar | *Visual    | NORML   | NORML    | NORML    |
| Odor             | scalar | *Visual    | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | *Visual    | >0.03   | NEG      | NEG      |
| Free Water       | scalar | *Visual    |         | NEG      | NEG      |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445  | 30.0    | 31.9     | 32.0     |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
|---------------|--------|------------|---------|----------|----------|

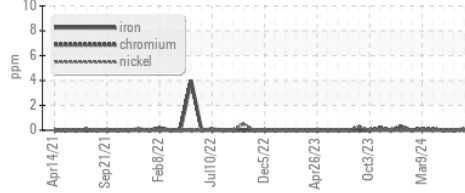
Color

Bottom

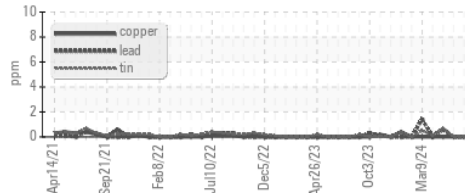


### GRAPHS

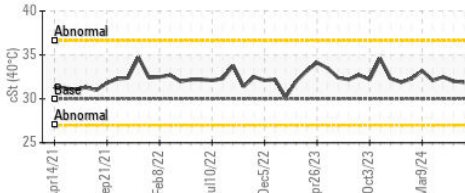
#### Ferrous Alloys



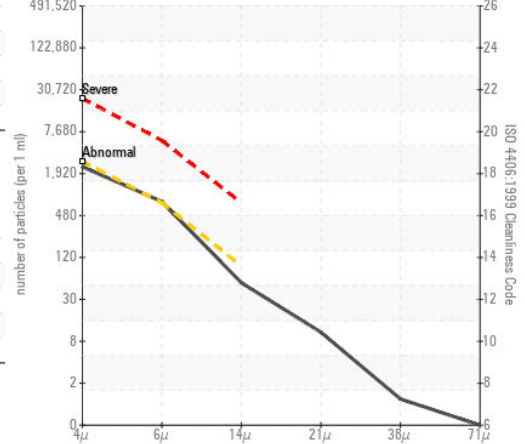
#### Non-ferrous Metals



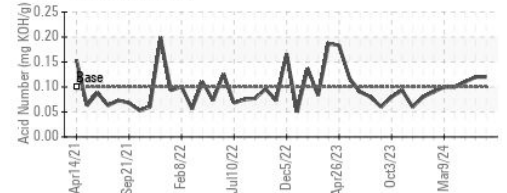
#### Viscosity @ 40°C



#### Particle Count



#### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : WC0711814

**Lab Number** : 06235944

**Unique Number** : 11124778

**Test Package** : IND 2 ( Additional Tests: KF )

**Received** : 15 Jul 2024

**Tested** : 16 Jul 2024

**Diagnosed** : 16 Jul 2024 - Don Baldrige

**UGI ENERGY SERVICES - LNG FACILITY**

80 ENERGY LN

MESHOPPEN, PA

US 18630

Contact: JOE BARRETT

jbarrett@ugies.com

T:

F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)